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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/608,742	06/27/2003	Yao Wang	EMC-01-183CIP1	7763
24227	7590	03/17/2006	EXAMINER	
EMC CORPORATION OFFICE OF THE GENERAL COUNSEL 176 SOUTH STREET HOPKINTON, MA 01748			BELL, CORY C	
			ART UNIT	PAPER NUMBER
			2164	

DATE MAILED: 03/17/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)
	10/608,742	WANG ET AL.
	Examiner	Art Unit
	Cory C. Bell	2164

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
 - If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
 - Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) Responsive to communication(s) filed on _____.
- 2a) This action is FINAL. 2b) This action is non-final.
- 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) Claim(s) 1-18 is/are pending in the application.
 - 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) Claim(s) _____ is/are allowed.
- 6) Claim(s) 1-18 is/are rejected.
- 7) Claim(s) _____ is/are objected to.
- 8) Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) The specification is objected to by the Examiner.
- 10) The drawing(s) filed on _____ is/are: a) accepted or b) objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 - a) All b) Some * c) None of:
 1. Certified copies of the priority documents have been received.
 2. Certified copies of the priority documents have been received in Application No. _____.
 3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

SAM RIMELL
PRIMARY EXAMINER

Attachment(s)

- 1) Notice of References Cited (PTO-892)
- 2) Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) Notice of Informal Patent Application (PTO-152)
- 6) Other: _____.

DETAILED ACTION

1. Claims 1-18 have been examined.

Specification

2. The lengthy specification has not been checked to the extent necessary to determine the presence of all possible minor errors. Applicant's cooperation is requested in correcting any errors of which applicant may become aware in the specification.

Claim Objections

3. **Claims 1, 10 and 18** are objected to because of the following informalities: IP should be replaced with Internet Protocol. Appropriate correction is required.

Claim Rejections - 35 USC § 112

4. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.
5. Claims 1-18 are rejected under 112 2nd paragraph.
6. **Claim 1** is rejected for the following reasons:

The relationship between "data" on line 1, line 2, and line 15 is unclear; and, Line 14 sites "may include" this limitation is optionally recited and causes the bounds of the claim to be unclear.

7. **Claim 10** is rejected for the following reasons:

The relationship between "data" on line 1, and line 2 is unclear.

8. **Claim 11** is rejected for the following reasons:

The relationship between "data" on line 1, line 2, and line 14 is unclear; and,

Line 14 sites "may include" this limitation is optionally recited and causes the bounds of the claim to be unclear.

9. **Claim 18** is rejected for the following reasons:

The relationship between "data" on line 17, line 18, and line 7(pg 74) is unclear; and,

Line 7 sites "may include" this limitation is optionally recited and causes the bounds of the claim to be unclear.

Claim Rejections - 35 USC § 102

10. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

11. Claims 1-6, 9-15, and 18 are rejected under 35 U.S.C. 102(E) as being

Anticipated by US Patent Number 6757696, hereafter known as Multer.

12. **Claims 1 and 10 are rejected for the following reasons:**

1. A computer architecture for managing resources for replication of data stored in a data storage environment including at least two data storage systems, and wherein data is replicated from one of the at least two data storage systems to at least one other data storage system of the at least two data storage systems, the architecture comprising:
a data replication management server(*Col 31 line 24-36*);
one or more data replication management software agents in communication with at least one of the two data storage systems and the data replication management server(*Col 31 lines 27-29, device engines are the software agents*), the agents being configured for performing data replication operations in response to commands from the data replication management server(*Col 31 lines 29-36*), wherein server commands to each of the software agents are sent over a network in accordance with an IP protocol(*Col 31 lines 21-23, Http is an IP protocol*);
and one or more data replication management clients(*each device engine represents a client to the management server*) that may include a software application that uses data that is replicated by commands from the server to the software agent(*Although this limitation is optionally recited and thus non-limiting it can be found in Col 42 lines 38-45*).

13. **Claims 2 and 11** are rejected for the following reasons:

Col 4 lines 36-43 teaches the client having "Microsoft Windows NT" which is a GUI which the client inherently communicates to the Server through.

14. **Claims 3-4 and 12-13** are rejected for the following reasons:

Col 31 lines 24-36 teaches the system using lock (or switches) to control read and write access between the software agents and the data storage, as they control read and write access to determine the direction of the flow of data from one source to another, and show that the server controls the replication. Claim 4 is also non-limiting as it is an intended use claim.

15. **Claims 5 and 14** are rejected for the following reasons:

The architecture of Claim 4, wherein the server stores configuration information for replication(*The system inherently must contain lock information*), security(*The server must inherently contain SSI configuration information Col 31 line 21-23*) and other configuration settings for the one or more software agents(*Col 31 lines 37-42*) and the one or more clients(*Col 31 lines 58-50*) in the data storage environment.

16. **Claims 6, 9, and 15** are rejected for the following reasons:

The architecture of Claim 5, wherein communication between the server and the

one or more clients is encrypted for security purposes. (*Col 31 21-23*)

17. **Claim 18** is rejected for the following reasons:

See claim 1 and 10 rejection. The system also inherently contains agents configured with a computer-executable program for performing data replication operations in response to commands, as the software agents that are inherently contained on the storage servers must be able to implement locks in response to server commands(*Col 31 lines 27-36*).

Claim Rejections - 35 USC § 103

18. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

19. Claims 7-8, and 16-17 are rejected under 35 U.S.C. 103(a) as being unpatentable over US Patent Number 6757696, hereafter known as Multer in view of US Patent Number 5751813, hereafter known as Dorenbos.

20. **Claims 7-8 and 16-17** are rejected for the following reasons:

Multer covers the claims upon which claim 6 is dependant, but fails to teach using encryption using 129 bit keys or greater. Dorenbos teaches the use of keys up to 1024 bits to encrypt messages (*Col 1 line 20-33*). Thus, it would have been obvious to one of

ordinary skill in the art to encrypt messages using 1024 bit keys due to the advantages that a larger key provides better protection for data which clients or the server may wish to keep private.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Cory C. Bell whose telephone number is (571) 272 2736. The examiner can normally be reached on m-f 8:30-5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Charles Rones can be reached on (571) 272 4085. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



SAM RIMELL
PRIMARY EXAMINER